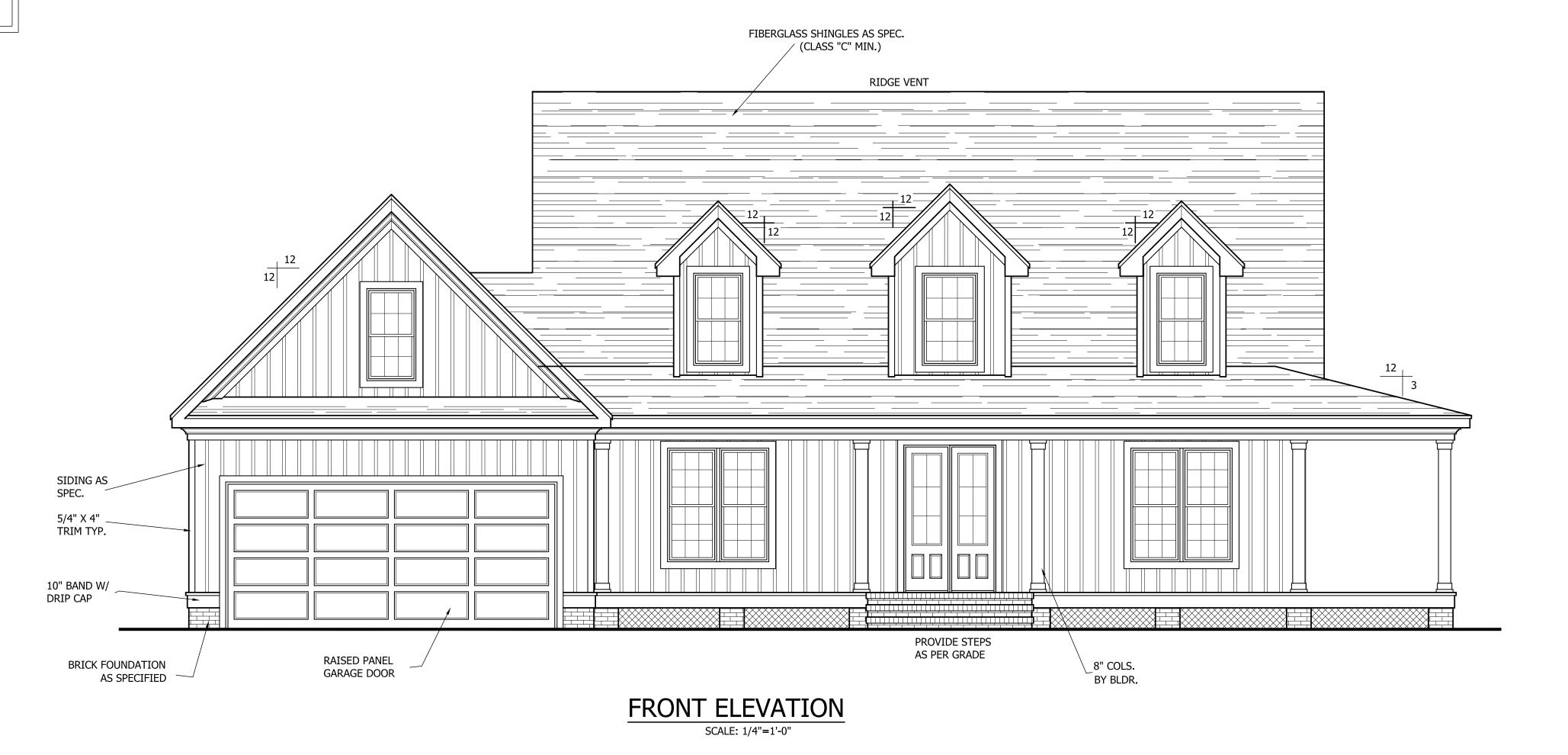
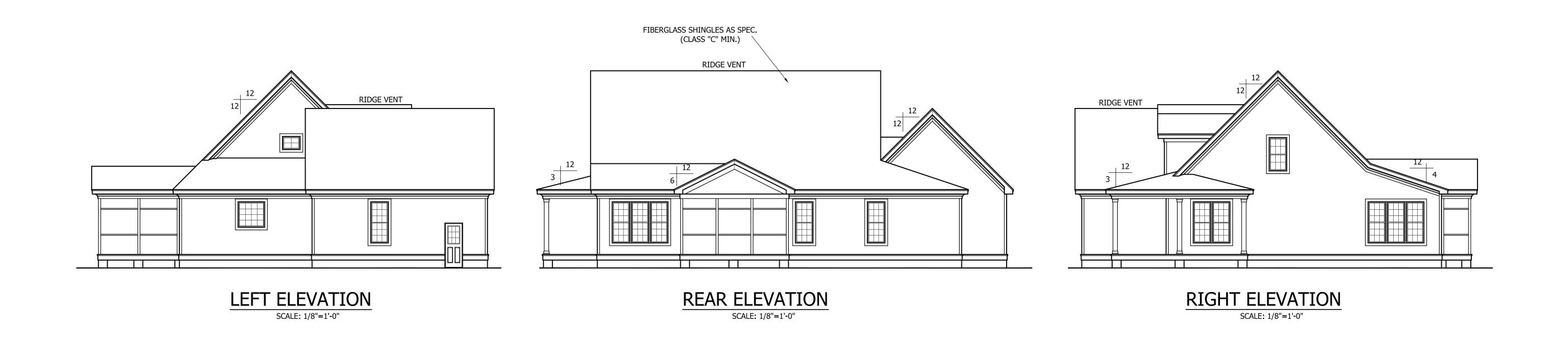
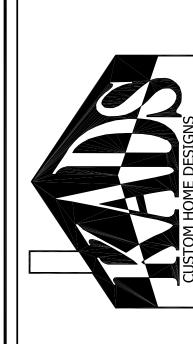
THIS PLAN HAS BEEN DRAWN TO CONFORM TO THE 2018 NORTH CAROLINA RESIDENTIAL CODE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGGINING WORK. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL STATE AND LOCAL BUILDING CODES AND ORDINANCES. KADS CUSTOM HOME DESIGNS ASSUMES NO LIABILITY FOR SITE CONDITIONS, CONSTRUCTION METHODS OR ANY DEVIATION OF THESE PLANS.

NOTE:
ALL WINDOWS TO BE INSTALLED MUST MEET
A MAXIMUM OF .32 U VALUE OR BETTER, UNLESS
ENERGY CALCULATIONS ARE SUBMITTED WITH PLANS
PROVIDED BY BUILDER AT TIME OF PLAN REVIEW.







ANGIER, NC 919-369-7181

DRAWN BY: D.W.O.

DATE: 7/16/20

PAGE NO

PLAN NO.



ANGIER, NC 919-369-7181

DRAWN BY: D.W.O.

DATE:

7/16/20

TOTAL HTD. SQ FT. = 2592

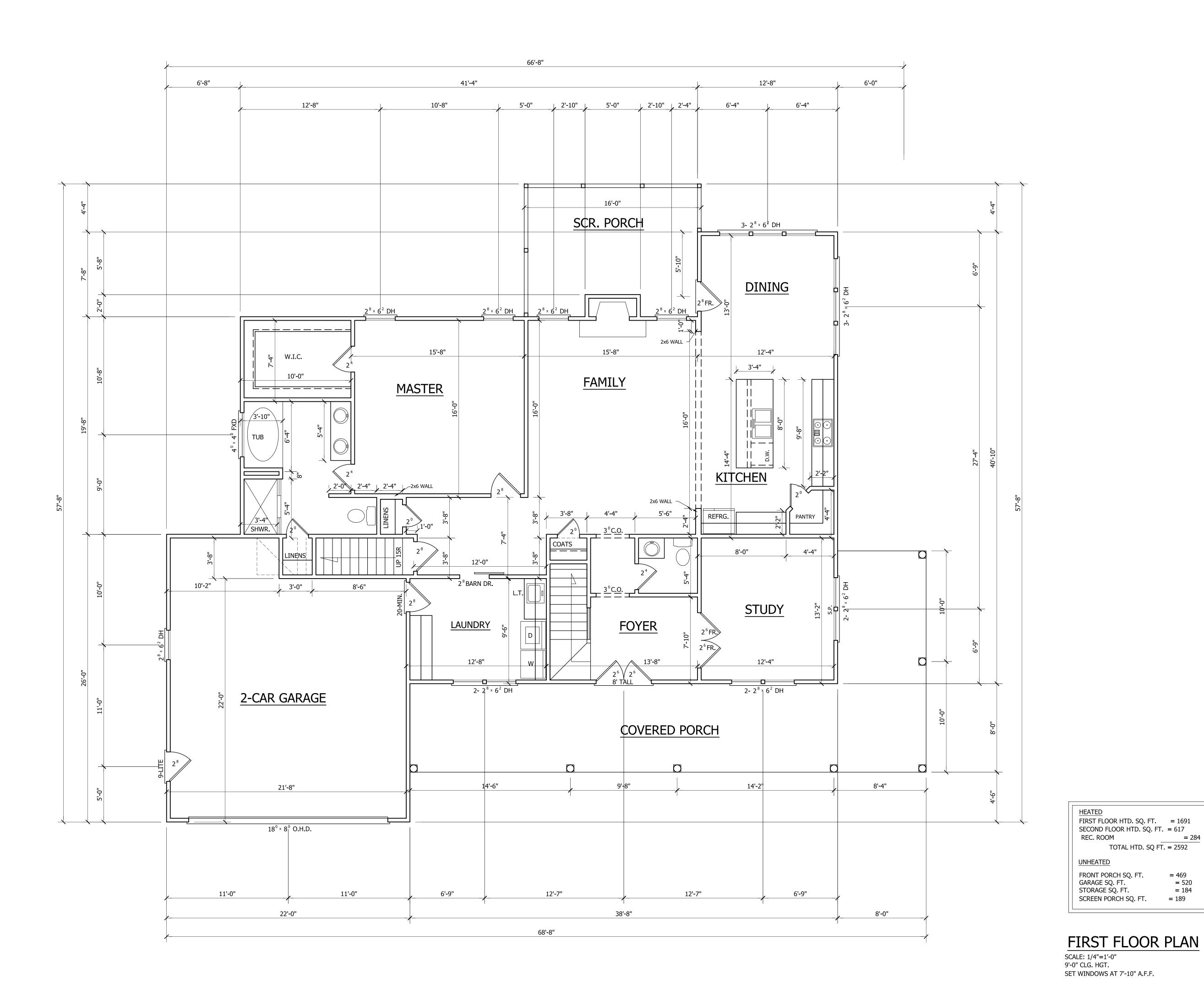
= 469 = 520 = 184

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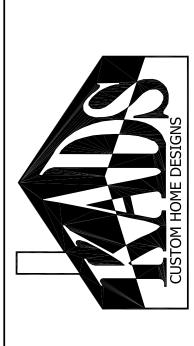
PAGE NO

OF

PLAN NO. DK2592



STEPHENSON BUILDERS, INC LOT 2 MORGAN FARMS "THE DARLIN"



ANGIER, NC 919-369-7181

DRAWN BY: D.W.O.

DATE: 7/16/20

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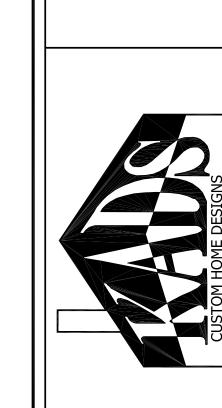
3 OF

PLAN NO.

DK2592

SECOND FLOOR PLAN

SCALE: 1/4"=1'-0" 8'-0" CLG. HGT. SET WINDOWS AT 7'-8" A.F.F. (U.N.O.)



ANGIER, NC 919-369-7181

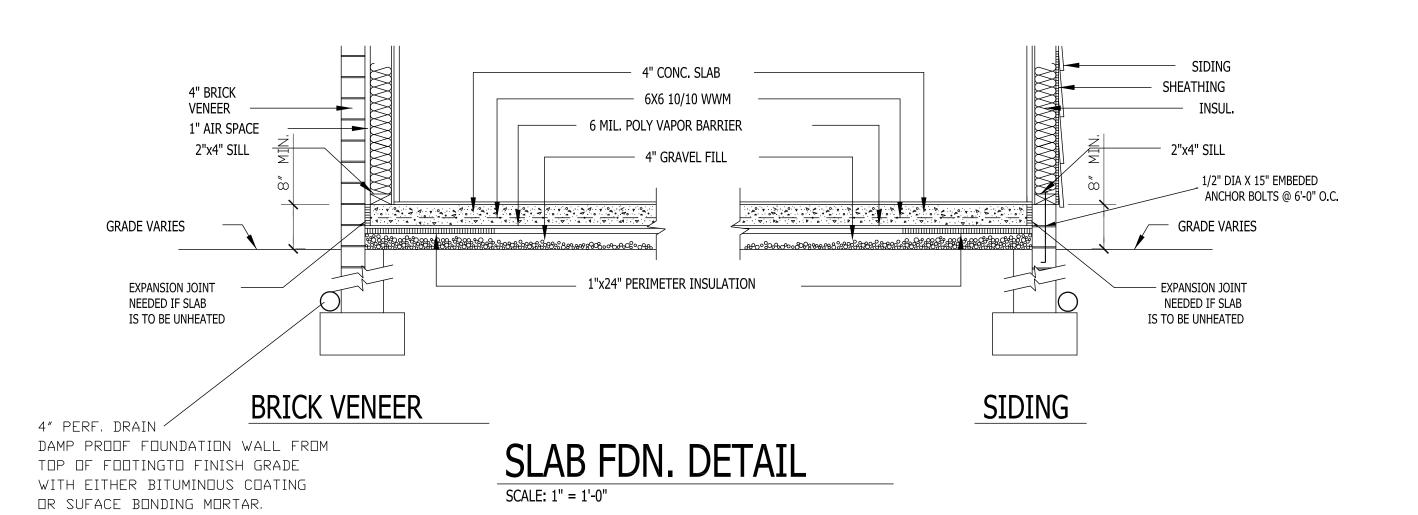
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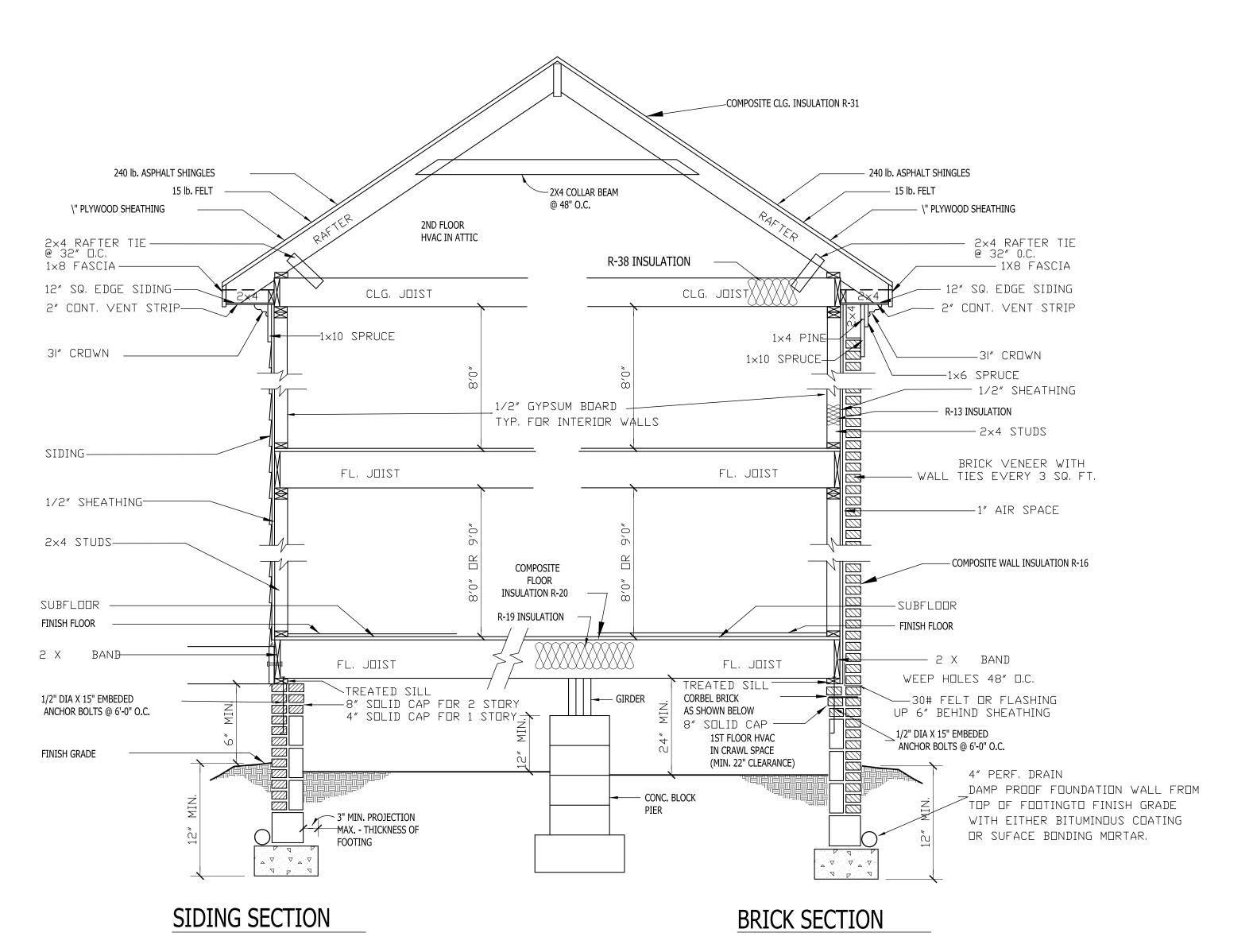
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OF

PLAN NO. DK2592



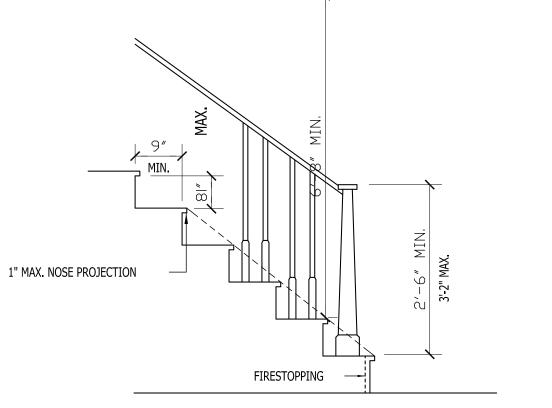


OR WIREMESH ON 6 MIL. VAPOR FOUNDATION BARRIER ON 4" CRUSHED STONE GRADE 8" CONC. BLK. WALL ₹ 8"x16" CONC. FTG. GARAGE SLAB

SCALE: NTS

EXPANSION JOINT

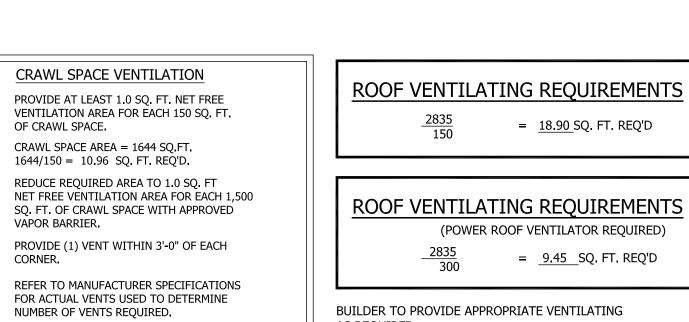
- 4" CONC. SLAB WITH FIBERMESH



NOTE: MINIMUM CLEAR WIDTH: 2'-8\" FOR INTERIOR STAIRS 3'-0" FOR EXTERIOR STAIRS

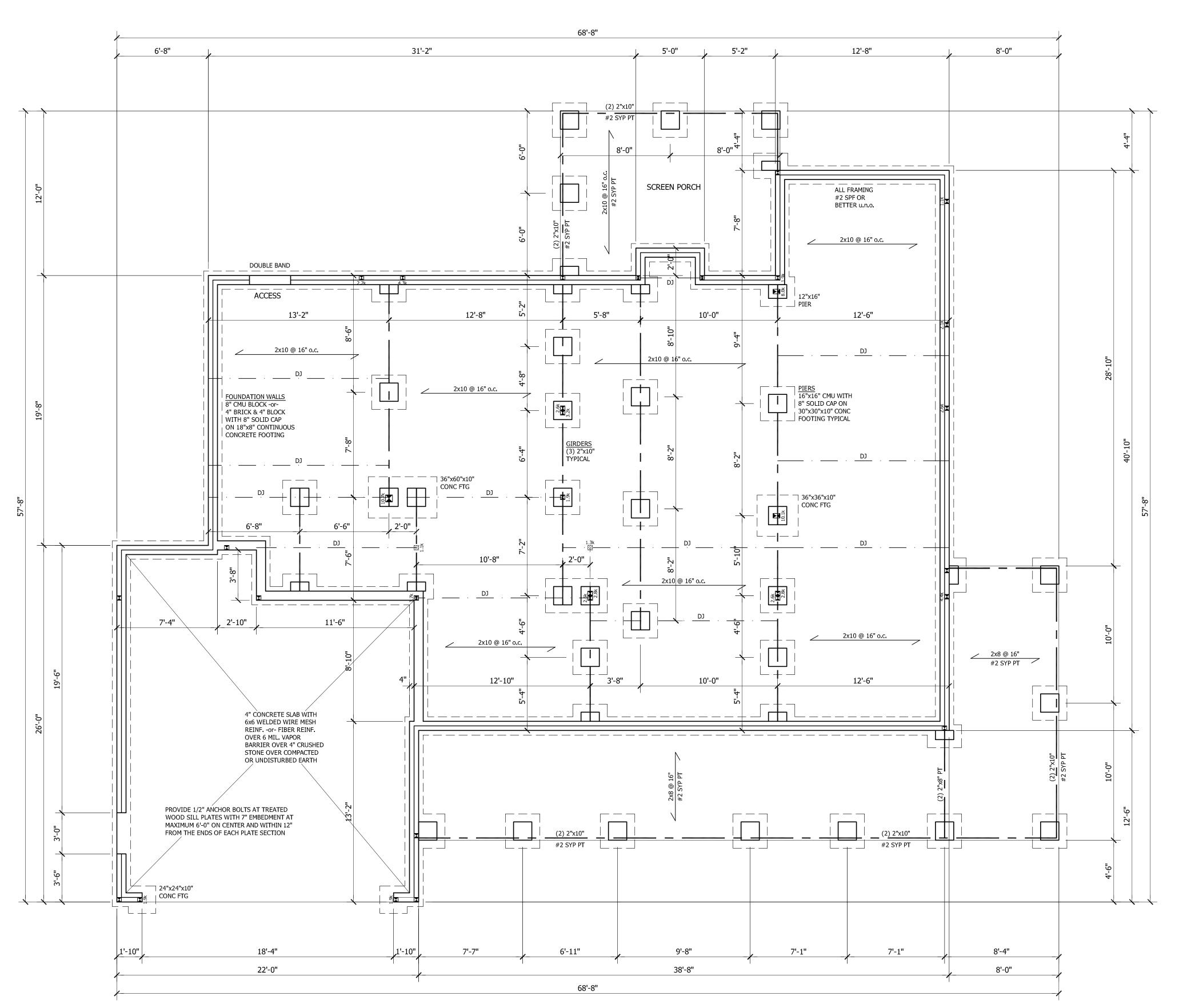
STAIR DETAIL SCALE: NTS

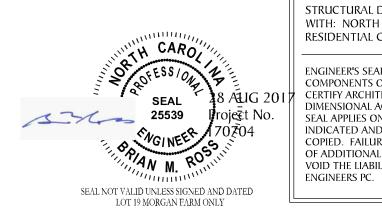
WALL SECTION SCALE: \" = 1'-0"



AS REQUIRED.

BUILDER TO PROVIDE APPROPRIATE VENTILATING





STRUCTURAL DESIGN IN ACCORDANCE
WITH: NORTH CAROLINA STATE
RESIDENTIAL CODE 2012 EDITION IRC

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DIMENSIONAL ACCURACY.
SEAL APPLIES ONLY FOR LOT NUMBER
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COPIED. FAILURE TO NOTIFY THE ENGINEER
OF ADDITIONAL USE OF THE PLANS WILL
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STEPHENSON BUILDERS THE DARLIN LOT 19 MORGAN FARM

PROJECT NO.

170704

DESIGN BY LLR 25 AUG 2017

REVISION DATE

FOUNDATION & FIRST FLOOR

SHEET NO.

SI OF SS

WALL BRACING NOTES:

WALL BRACING SHALL BE IN ACCORDANCE WITH SECTION R602.10.3 CONTINUOUS SHEATHING. BRACING METHOD CS-WSP SHALL BE USED IN ACCORDANCE WITH TABLE R602.10.1.

THE REQUIRED LENGTH OF BRACING FOR EACH SIDE OF A RECTANGLE CIRCUMSCRIBED AROUND THE PLAN OR A PORTION OF THE PLAN AT EACH STORY LEVEL SHALL BE IN ACCORDANCE WITH TABLE R602.10.3 AND FIGURE R60.10.3(1). UNLESS NOTED OTHERWISE, THE ENTIRE STRUCTURE IS ASSUMED TO CIRCUMSCRIBED WITHIN A SINGLE RECTANGLE.

MINIMUM PANEL WIDTH IS 24". SEE SECTION R602.10.3 FOR ADDITIONAL INFORMATION. CONNECTION CRITERIA SHALL BE IN ACCORDANCE WITH TABLE R602.10.1. PORTAL FRAME CONSTRUCTION SHALL BE IN ACCORDANCE WITH FIGURE R602.10.1

HOLD DOWN DEVICE SHALL BE AS FOLLOWS: SIMPSON LSTA24 STRAP (OR EQUIVALENT) BETWEEN FLOORS EXTENDING FROM BOTTOM OF

FLOOR BAND UP STUDS WHERE SHOWN. SIMPSON HD3B HOLDOWN (OR EQUIVALENT) WHERE REQUIRED TO CONNECT DIRECTLY TO FOUNDATION.

WIND SPEED: 100 mph

EAVE TO RIDGE HEIGHT: 17.5 ft

FIRST FLOOR:

SHORT SIDE LENGTH OF CIRCUMSCRIBED RECTANGLE: 53.33 ft REQUIRED LENGTH OF BRACING = 13.9 ftPROVIDED LENGTH OF BRACING = $\overline{27.8 \text{ ft}}$

LONG SIDE LENGTH OF CIRCUMSCRIBED RECTANGLE: 60.67 ft REQUIRED LENGTH OF BRACING = 15.4 ftPROVIDED LENGTH OF BRACING = 26.5 ft

2x8 @ 16" o.c. (2) 2"x10" (2) 1 3/4" x 9 1/4" LVL ______ 2x10 @ 16" o.c. DOUBLE EVERY OTHER JOIST | 2×10 @ 16" o.d (2) 1 3/4" x 9 1/4" LVL HU410 — 2x10 @ 16" o.c. (2) 2"x10" 2x10 @ 16"/o.c. 2x10 @ 16" o.c. 2x10 @ 16" o.c. _____2x6 @ 16" o.c. 16" JOIST BY MANUFACTURER (2) 1 3/4" x 14" LVL — CS-PF PORTAL FRAME EACH SIDE TYPICAL

(2) 2"x10" CONTINUOUS

FRAMING SYSTEM
JOIST LAYOUT AND PLACEMENT BY MANUFACTURER
TO COINCIDE WITH THE SUPPORT LOCATIONS SHOWN. JOISTS SHALL BE DESIGNED FOR MAXIMUM L/480 LIVE LOAD DEFLECTION. JOIST LAYOUT SHALL BE PROVIDED FOR REVIEW AND COORDINATED WITH THE ENGINEER OF RECORD. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

SECOND FLOOR SYSTEM ABOVE GARAGE TO BE FRAMED WITH 16" BCI 6000s SERIES JOISTS AT MAX. 16" SPACING TYP -or- EQUIVALENT

> EXTEND HEADER AND PROVIDE CS-PF PORTAL FRAME PANEL PER FIG. R602.10.1. PROVIDE LSTA24 STRAP (OR EQUIVALENT) EACH SIDE AS SHOWN. FASTEN SHEATHING TO HEADER AND WALL FRAMING (EACH STUD) WITH 8d NAILS AT 3" o.c. AS SHOWN. SEE FIG. R602.10.1 FOR ADDITIONAL REQUIREMENTS. SEE

SHEET S5 FOR DETAIL.

COPIED. FAILURE TO NOTIFY THE ENGINEER OF ADDITIONAL USE OF THE PLANS WILL VOID THE LIABILITY OF ROSS LINDEN ENGINEERS PC. SEAL NOT VALID UNLESS SIGNED AND DATED

STRUCTURAL DESIGN IN ACCORDANCE WITH: NORTH CAROLINA STATE RESIDENTIAL CODE 2012 EDITION IRC ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY. SEAL APPLIES ONLY FOR LOT NUMBER INDICATED AND SIGNED PLANS MAY NOT BE

FRAMING NOTES

1. STRUCTURAL NOTES SHEET S5.

2. FRAMING SHALL BE #2 SPF OR #2 SYP u.n.o.

3. EXTERIOR AND BEARING HEADERS (2) 2"x10" u.n.o.

4. ■ DENOTES POINT LOAD. SEE CONSTRUCTION NOTE #4 ON S5.

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STEPHENSON BUILDERS THE DARLIN LOT 19 MORGAN FARM

PROJECT NO. 170704

DESIGN BY LLR

25 AUG 201*7*

DATE REVISION

FIRST CEILING

FRAMING

SHEET NO.

OF S5

FIRST CEILING FRAMING

SCALE: 1/4" = 1'-0"

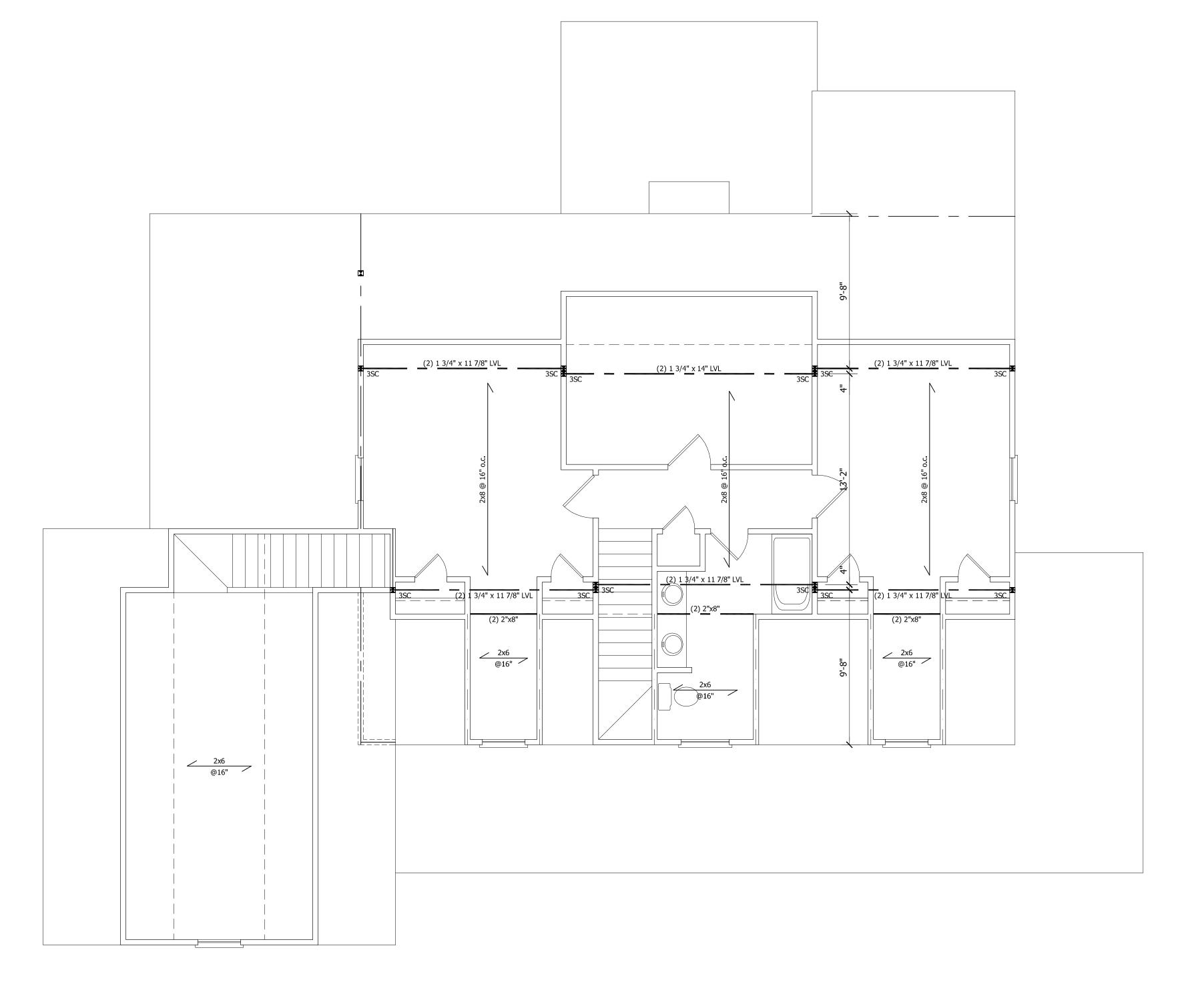
PER SECTION R602.10.3.2, THE AMOUNT OF BRACING PROVIDED ON THE SECOND STORY EQUALS OR EXCEEDS THE AMOUNT OF BRACING FOR THE FIRST STORY BELOW, THEREFORE A SEPARATE ANALYSIS OF SECOND STORY BRACING IS NOT REQUIRED.

FRAMING NOTES

1. STRUCTURAL NOTES SHEET S5.

2. FRAMING SHALL BE #2 SPF OR #2 SYP u.n.o.

3. EXTERIOR AND BEARING HEADERS (2) 2"x10" u.n.o. 4. ■ DENOTES POINT LOAD. SEE CONSTRUCTION NOTE #4 ON S5.





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PLAN ENGINEERING REMAINS THE PROPERTY PLAN ENGINEERING REMAINS THE PROPERTY
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STEPHENSON BUILDERS THE DARLIN LOT 19 MORGAN FARM

PROJECT NO. 170704

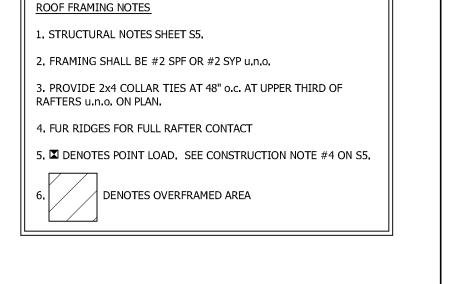
DESIGN BY LLR

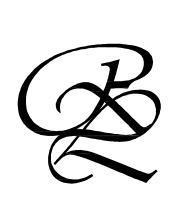
25 AUG 2017 DATE **REVISION**

SECOND CEILING FRAMING

SHEET NO.

OF S5





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ERS

STEPHENSON BUILDERS THE DARLIN LOT 19 MORGAN FARM

PROJECT NO. 170704

DESIGN BY LLR 25 AUG 2017

REVISION DATE

ROOF PLAN FRAMING

SHEET NO.

STRUCTURAL DESIGN IN ACCORDANCE WITH: NORTH CAROLINA STATE

RESIDENTIAL CODE 2012 EDITION IRC

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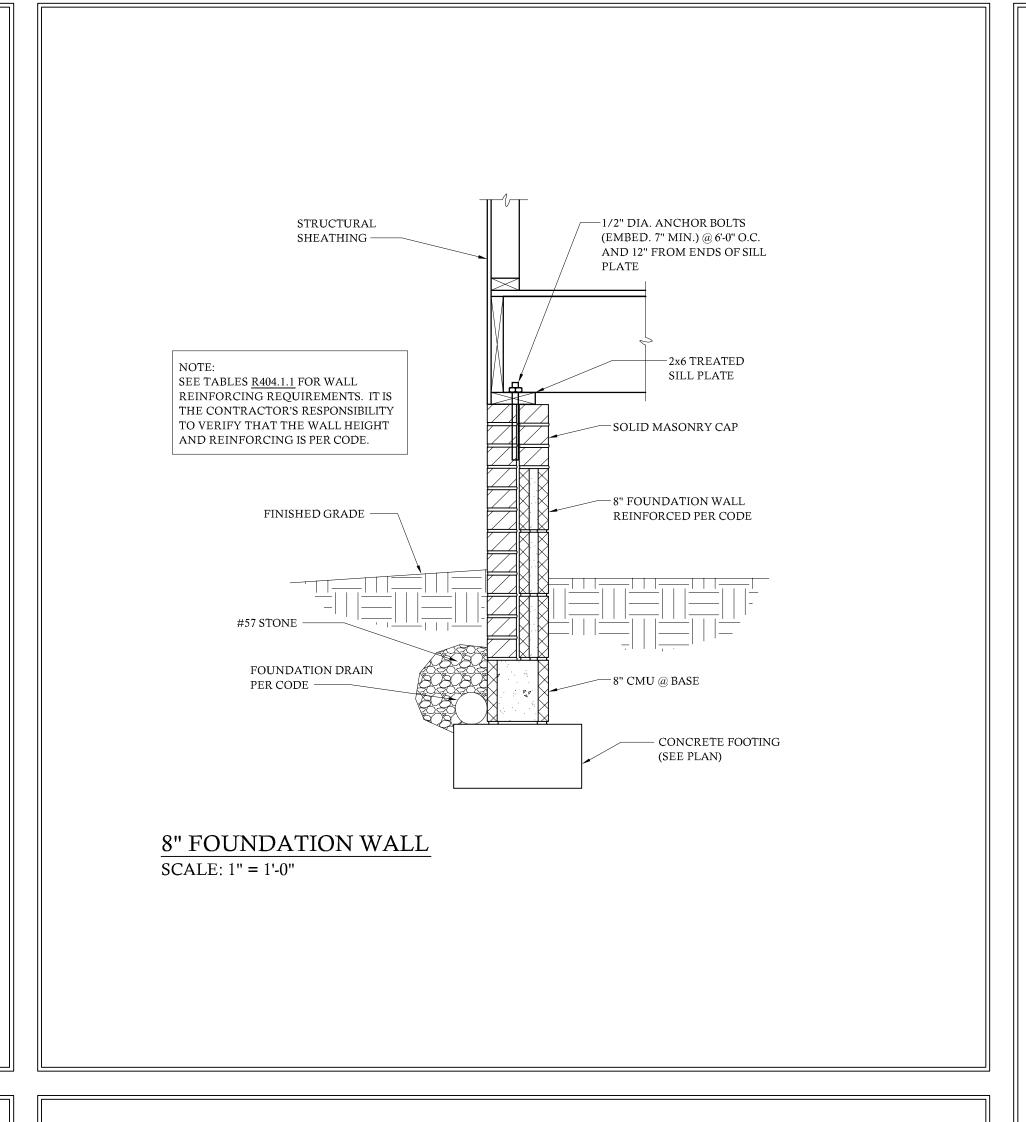
DIMENSIONAL ACCURACY.
SEAL APPLIES ONLY FOR LOT NUMBER
INDICATED AND SIGNED PLANS MAY NOT BE

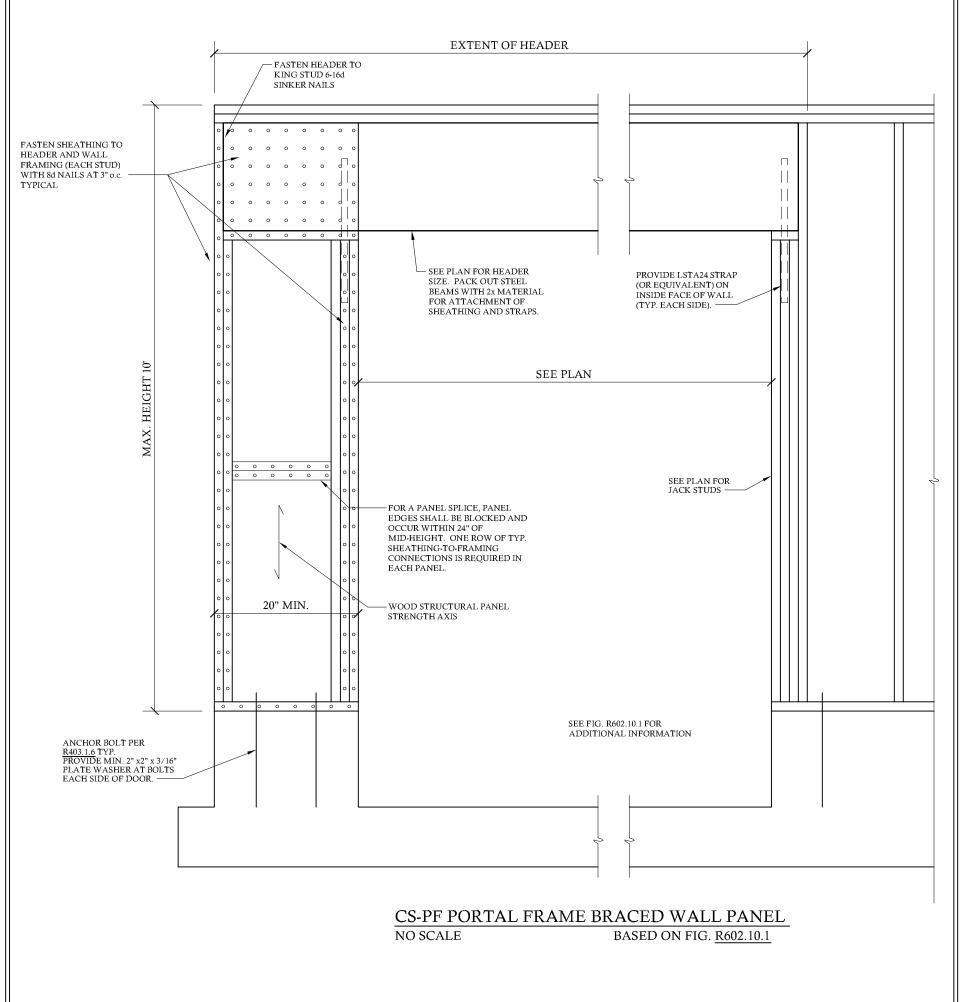
ENGINEERS PC.

SEAL NOT VALID UNLESS SIGNED AND DATED LOT 19 MORGAN FARM ONLY **S4** OF S5

ROOF PLAN FRAMING
SCALE: 1/4" = 1'-0"

SEAL 18 ALIC 25539 Project I 70704





STRUCTURAL NOTES

1. ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY. ROSS LINDEN ENGINEERS PC ASSUMES NO LIABILITY FOR CHANGES OR MODIFICATIONS MADE TO THESE PLANS BY OTHERS, OR FOR CONSTRUCTION METHODS, OR FOR ANY DEVIATION FROM THE PLANS.

2. ALL CONSTRUCTION, WORKMANSHIP, MATERIAL QUALITY AND SELECTION SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE - RESIDENTIAL CODE 2012 EDITION FROM THE INTERNATIONAL RESIDENTIAL CODE 2009 (IRC), AND LOCAL CODES AND REGULATIONS. DIMENSIONS SHALL GOVERN OVER SCALE AND CODE SHALL GOVERN OVER DIMENSIONS.

3. CONTACT THE ENGINEER PRIOR TO CONSTRUCTION IF ANY DISCREPANCIES ARE NOTED ON THE PLANS.

4. ONLY CURRENT SEALED DRAWINGS ARE TO BE USED FOR CONSTRUCTION.

DESIGN LOADS		
	LIVE LOAD	DEAD LOAD
TABLE R301.4	(PSF)	(PSF)
DWELLING UNITS	40	10
SLEEPING ROOMS	30	10
ATTICS WITH STORAGE	20	10
ATTICS WITHOUT STORAGE	10	10
ROOF SNOW	20	10
STAIRS	40	10
DECKS	40	10
EXTERIOR BALCONIES	60	10
PASSENGER VEHICLE GARAGES	50	
FIRE ESCAPES	40	10
GUARDRAILS AND HANDRAILS	200	
I .		

ADDITIONAL LOADS

FIGURE R301.2(4) - BASIC DESIGN WIND SPEED 100 MPH

FIGURE R301.2(2) - SEISMIC DESIGN CATEGORY B

 $\underline{\text{TABLE R301.2(4)}}$ - DESIGN POSITIVE AND NEGATIVE PRESSURE FOR DOORS AND WINDOW FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF

TABLE R301.2(2) - COMPONENT AND CLADDING LOADS FOR A BUILDING LOCATED IN EXPOSURE B

ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE DESIGNED BASED ON ROOF PITCHES AND MEAN ROOF HEIGHT AS FOLLOWS:

2.25:12 TO 7:12 34.8 PSF 36.5 PSF 37.9 PSF 7:12 TO 12:12 21.0 PSF 22.1 PSF 22.9 PSF

WALL CLADDING SHALL BE DESIGNED FOR A 24.1 PSF POSITIVE AND NEGATIVE PRESSURE

MATERIALS

1. FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) OR #2 SOUTHERN YELLOW PINE (SYP) WITH THE FOLLOWING MINIMUM **DESIGN PROPERTIES:**

Fb = 800 PSI Fv = 70 PSI E = 1.4E6 PSI

INDICATED ON THE PLANS:

2. FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SYP) TREATED IN ACCORDANCE WITH AWPA C22 WITH THE FOLLOWING DESIGN PROPERTIES: Fb = 1050 PSI Fv = 95 PSI E = 1.6E6 PSI

3. ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES: Fb = 2600 PSI Fv = 285 PSI E = 1.9E6 PSITHE FOLLOWING PRODUCTS MEET OR EXCEED THE ABOVE SPECIFICATIONS AND MAY BE USED AT THE LOCATION

BROADSPAN 1.9E-2750Fb LVL BY GEORGIA PACIFIC iLEVEL TRUS JOIST 1.9E MICROLLAM LVL BY WEYERHAUSER

4. STRUCTURAL STEEL WIDE FLANGE BEAMS SHALL CONFORM TO ASTM A992 OR A572, GRADE 50. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36.

5. BOLTS SHALL CONFORM TO A325 MINIMUM GRADE. 6. REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM

A615 GRADE 60. 7. SEE <u>TABLE R602.3(1)</u> FOR STRUCTURAL MEMBER FASTENING

REQUIREMENTS. 8. POURED CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE

9. CONCRETE LOCATED PER <u>TABLE R402.2</u> SHALL BE AIR ENTRAINED WITH THE TOTAL AIR CONTENT NOT LESS THAN 5 PERCENT OR MORE THAN 7 PERCENT.

APPLICABLE STANDARDS LISTED IN ACI 318 OR ASTM C 1157.

10. MASONRY UNITS SHALL CONFORM TO ACI 530/ASCE 5/TMS 402 AND MORTAR SHALL COMPLY WITH ASTM C 270.

CONSTRUCTION

1. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ANCHORED AT EACH END WITH A MINIMUM OF FOUR 16d NAILS OR TWO 1/2" x 4" LAG SCREWS.

2. ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

3. ALL BEAMS SHALL BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR

COLUMNS INDICATED WITH A MINIMUM OF THREE STUDS.

4. SOLID BLOCKING SHALL BE PROVIDED AT ALL POINT LOADS TO TRANSFER LOADS THROUGH FLOOR LEVELS. COLUMNS SHALL BE CONTINUOUS TO THE FOUNDATION OR TO OTHER STRUCTURAL ELEMENTS.

5. ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS SHALL BE PROVIDED FOR REVIEW AND COORDINATED WITH THE ENGINEER OF RECORD. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. ROOF TRUSS DRAWINGS SHALL BE SIGNED AND SEALED BY THE MANUFACTURER AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

6. WALL BRACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION R602.10 OF THE NORTH CAROLINA RESIDENTIAL

CODE. A. EXTERIOR WALLS ARE ASSUMED TO BE BRACED WALL LINES. ADDITIONAL INTERIOR WALLS MAY ALSO BE USED AS BRACED WALL LINES WHERE APPLICABLE. SEE PLAN FOR LOCATIONS.

B. THE EXTERIOR OF THE STRUCTURE SHALL BE CONTINUOUSLY SHEATHED WITH 1/2" WOOD STRUCTURAL SHEATHING (PLYWOOD OR OSB) PER CODE SECTION R602.10.4. EXTERIOR BRACED WALL LINES ARE ASSUMED TO BE BRACED WITH CS-WSP (WOOD STRUCTURAL PANEL) BRACED WALL PANELS. ALTERNATE BRACING METHODS, IF USED, MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE CODE AND MUST BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION. C. INTERIOR BRACED WALL LINES ARE CONSIDERED TO BE

BRACED WITH 1/2" GB (GYPSUM BOARD) BRACED WALL PANELS. SEE TABLE R602.10.2 FOR CONNECTION CRITERIA. D. SEE PLANS FOR SPECIAL WALL BRACING REQUIREMENTS FOR GARAGE WALLS AND OTHER WALLS WITH MULTIPLE OR LARGE OPENINGS.

7. STEEL FLITCH BEAMS SHALL BE FASTENED TOGETHER WITH 1/2" DIAMETER BOLTS WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT. BOLTS SHALL BE SPACED AT MAXIMUM 24" o.c. STAGGERED TOP AND BOTTOM OF BEAM WITH A MINIMUM 2" EDGE DISTANCE. TWO BOLTS SHALL BE LOCATED AT 6" FROM EACH END OF FLITCH BEAM.

8. BRICK LINTELS SHALL BE 3 $1/2 \times 3 1/2 \times 1/4$ STEEL ANGLE FOR UP TO 6'-0" MAXIMUM SPAN AND 6 x 4 x 5/16 FOR SPANS GREATER THAN 6'-0".

9. BRICK LINTELS AT SLOPED AREAS SHALL BE 4 x 3 1/2 x 1/4 STEEL ANGLE WITH 16d NAILS IN 3/16" HOLES IN 4" ANGLE LEG AT 12" o.c. TO TRIPLE RAFTER. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3 x 3 x 1/4 PLATES SHALL BE WELDED AT 24" o.c. ALONG THE STEEL ANGLE.

FOUNDATION

1. MINIMUM ALLOWABLE SOIL BEARING CAPACITY IS ASSUMED TO BE 2000 PSF. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SOIL BEARING CAPACITY.

2. CONCRETE AND MASONRY FOUNDATION WALLS SHALL BE SELECTED AND CONSTRUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION R404 OR IN ACCORDANCE WITH ACI 318, NCMA TR68-A, OR ACI 530/ASCE 5/TMS 402.

3. MASONRY AND POURED CONCRETE WALL REINFORCEMENT SHALL BE IN ACCORDANCE WITH TABLES R404.1.1 (1 THROUGH 4) OF THE NORTH CAROLINA RESIDENTIAL CODE.

A. PER R404.1.3, TABLES ASSUME THAT WALLS HAVE PERMANENT LATERAL SUPPORT AT THE TOP AND BOTTOM. B. WALL REINFORCING SHALL BE PLACED ACCORDING TO FOOTNOTE (c) OF THE TABLES (REINFORCING IS NOT CENTERED IN WALL).

C. FOUNDATION DRAINS ARE ASSUMED AT ALL WALLS PER

4. WOOD SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH 1/2" ANCHOR BOLTS WITH MINIMUM 7" EMBEDMENT SPACED A MAXIMUM OF 6'-0" o.c. AND WITHIN 12" FROM THE ENDS OF EACH PLATE SECTION.

5. THE UNSUPPORTED HEIGHT OF SOLID MASONRY PIERS SHALL NOT EXCEED TEN TIMES THEIR LEAST DIMENSION. UNFILLED HOLLOW PIERS MAY BE USED IF THE UNSUPPORTED HEIGHT IS NOT MORE THAN FOUR TIMES THEIR LEAST DIMENSION.

6. CENTERS OF PIERS SHALL BEAR IN THE MIDDLE THIRD OF THE FOOTINGS, AND GIRDERS SHALL CENTER IN THE MIDDLE THIRD OF THE PIERS.

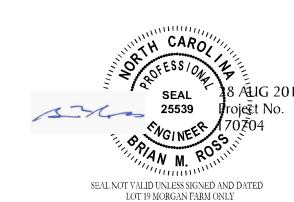
7. ALL FOOTINGS SHALL HAVE MINIMUM 2" PROJECTION ON EACH SIDE OF FOUNDATION WALLS.

ABBREVIATIONS		
CONC	CONCRETE	
CONT	CONTINUOUS	
DBL	DOUBLE	
DJ	DOUBLE JOIST	
DSP	DOUBLE STUD POCKET	
EA	EACH	
FL PT	FLAT PLATE	
FTG	FOOTING	
HGR	HANGER	
LVL	LAMINATED VENEER LUMBER	
NTS	NOT TO SCALE	
OC	ON CENTER	
PT	PRESSURE TREATED	
RS	RAFTER SUPPORT	
SC	STUD COLUMN	
SP	STUD POCKET	
TJ	TRIPLE JOIST	
TYP	TYPICAL	
UNO	UNLESS NOTED OTHERWISE	
XJ	EXTRA JOIST	



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PROJECT NO.

DESIGN BY LLR

25 AUG 2017

DATE

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NOTES & DETAILS

SHEET NO.

REVISION